



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/604,595	06/27/2000	Paul A. Underbrink	ST97001C12 (209-US-CIP2)	5340
34408	7590	06/09/2004	EXAMINER ODOM, CURTIS B	
THE ECLIPSE GROUP 10453 RAINTREE LANE NORTHRIDGE, CA 91326			ART UNIT 2634	PAPER NUMBER

DATE MAILED: 06/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/604,595

Applicant(s)

UNDERBRINK ET AL.

Examiner

Curtis B. Odom

Art Unit

2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 June 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-65 is/are pending in the application.
- 4a) Of the above claim(s) 37-65 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 June 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: The pages of the specification are suggested to be numbered.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-36 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claims 1-36 recite the limitation “despreding a PN code from a spread spectrum signal”. Even though the method and apparatus of the claimed invention is described throughout the specification as having the ability to “despread a PN code from a spread spectrum signal”, it is the understanding of the examiner that the claimed invention is actually **despreding a spread spectrum signal using a PN code**. The claimed invention despreads a PN code from a spread spectrum signal by multiplying the

Art Unit: 2634

signal samples by the PN code. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made that multiplying a signal sample by a corresponding PN code despreads the spread spectrum signal, not the PN code.

4. Claims 23, 24, 27, 38, 31, 32, 35, and 36 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claims 23, 24, 27, 38, 31, 32, 35, and 36 recite the limitation “a fourth multiplier”, or “multiplying...to obtain a fourth product”, or “means for multiplying...to obtain a fourth product”. However, the specification does not disclose a fourth multiplier or means for obtaining a fourth product coupled to a first switch for selecting one of the in-phase portion and the quadrature-phase portion and a second switch coupled to the first switch for selecting one of the even samples and the odd samples (see Fig. 9 and page 18, line 11-page 19, line 9 of the specification).

Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claims 11-15 and 29-36 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 45-54 are directed toward a computer data signal. Note this signal merely consists of “1” and “0” to represent the coded signal. It does not

Art Unit: 2634

fall into the category of a method, apparatus, product, or composition of matter. Therefore, the claims are rejected under 35 U.S.C 101 for being directed toward non-statutory subject matter.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Lee (U. S. Patent No. 5, 267, 260).

Regarding claim 1, Lee discloses a system for despreading (column 4, lines 26-37) a spread spectrum signal using a PN code, wherein the spread spectrum signal comprises a plurality of signal samples (Fig. 2, blocks 33 and 34, column 3, lines 19-43, wherein it is well known that an A/D converter creates signal samples from a received signal), each signal sample having an in phase and quadrature-phase portion, and wherein the PN code comprises a plurality of chips (wherein it is known that PN codes comprise of chips), the system comprising:

a switch (Fig. 2, block 3, column 4, lines 26-37) for selecting one of the in-phase portion and the quadrature-phase portion; and

a first multiplier (Fig. 2, block 39, column 4, lines 26-37) coupled to the switch for multiplying the selected portion of the plurality of signal samples with one of the plurality of PN code chips to obtain a first product.

Regarding claim 6, the claimed method includes features corresponding to the above rejection of claim 1, which is applicable hereto.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee (U. S. Patent No. 5, 267, 260) in view of Langberg et al. (U.S. Patent No. 5, 852, 630).

Regarding claim 6, Lee discloses all of the subject matter as described in the previous rejection (see rejection of claim 1, except for the method written as a computer program product with a computer readable storage medium.

However, Langberg et al. teaches that the method and apparatus for a transceiver warm start activation procedure with precoding can be implemented in software stored in a computer-readable medium. The computer readable medium is an electronic, magnetic, optical, or other physical device or means that can contain or store a computer program for use by or in connection with a computer-related system or method (note column 3, lines 51-65). One skilled in the art at the time the invention was made would have clearly recognized that the method of Lee. would have been implemented into software. The implemented software would perform the same function of the hardware for less expense, greater adaptability, and greater flexibility.

Art Unit: 2634

Therefore, it would have been obvious to have used the software in Lee as taught by Langberg et al. in order to reduce cost and improve the adaptability and flexibility of the communication system.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Sato (U. S. Patent No. 5, 956, 328) discloses switching between an in-phase and quadrature signal when chip levels of the despreading code are not coincident with each other.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Curtis B. Odom whose telephone number is 703-305-4097. The examiner can normally be reached on Monday- Friday, 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 703-305-4714. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Application/Control Number: 09/604,595

Page 7

Art Unit: 2634

Curtis Odom
May 26, 2004



STEPHEN CHIN
SUPERVISORY PATENT EXAMINE
TECHNOLOGY CENTER 2600